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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/774,553	02/09/2004	Pak-Lung Seto	32346.P17720	8977

32047 7590 04/10/2006

GROSSMAN, TUCKER, PERREAULT & PFLEGER, PLLC
55 SOUTH COMMERICAL STREET
MANCHESTER, NH 03101

EXAMINER

KO, DANIEL BOKMIN

ART UNIT	PAPER NUMBER
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2189

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.		Applicant(s)	
	10/774,553		SETO ET AL.	
	Examiner		Art Unit	
	Daniel B. Ko		2189	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/9/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is responsive to the application filed on 2/9/2004. Claims 1-24 have been submitted for examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 4 and 9 recites the limitation "a first state" in claim 4, lines 7 and in claim 9, lines 7. It is not clear the limitation "a first state" in claim 4 refers to "a first state" in claim 2 or new first state. Also, it is not clear the limitation "a first state" in claim 9 refers to "a first state" in claim 7 or new first state.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 6-8, 11-12, and 18-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Philbrick et al. (U.S. Patent Application 2005/0204058 A1), hereinafter simply Philbrick.

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Regarding claims 1, 6, 11, and 18, Philbrick teaches an article comprising:

a storage medium having stored therein a memory array, said memory array comprising a programmable data element, and said storage medium also having stored therein instructions that when executed by a machine result in the following:

analyzing data in a location of said memory array, said location associated with a predetermined frame type of a received frame (paragraph 278 and 458);

receiving an input signal indicating if said received frame contains an error (paragraph 459); and

providing an output signal indicating a negative receive response status if said input signal indicates an error in said received frame (paragraph 459).

Regarding claims 2, 7, 12, and 19, Philbrick teaches an article, wherein said instructions that when executed by said machine also result in the following:

checking a state of a first check bit in said location of said memory array associated with said predetermined frame type, wherein a state of said first check bit indicates if said predetermined frame type is supported (paragraph 278); and

providing said output signal indicating said negative receive response status if said state of said first check bit is in a first state (paragraph 459).

Regarding claims 3, and 8, Philbrick teaches an article, wherein said programmable data element comprises said first check bit (paragraph 459, Philbrick discloses the IRHDDR_ERR bit that indicates an error exists in the frame).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 4-5, 9-10, 13, 15-16, 20, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Philbrick et al. (U.S. Patent Application 2005/0204058 A1), in view of Kikuchi et al. (US Patent 6,918,080 B2), hereinafter simply Kikuchi.

Regarding claims 4, 9, 13, and 20, Philbrick teaches the limitations of the those claims as set forth for the claims 1-2, above. However, Philbrick does not teach comparing count data for the received frame with a frame length of the validated frame. Kikuchi teaches comparing count data for the received frame with a frame length of the validated frame (column 23, lines 56-64; column 25, lines 5-16; column 25, lines 33-39). At the time of invention it would have been obvious to a person of ordinary skill in the art

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to combine the Philbrick with Kikuchi. The motivation for doing so would have been an improved the coding efficiency by limited bit insertion and decreased the number of inserted bits (See Kikuchi, column 9, lines 59-67; column 10, lines 1-4).

Regarding claims 5 and 10, Kikuchi teaches an article, wherein said programmable data element comprises said second check bit and said frame length (column 24, lines 56-64; column 25, lines 5-16; column 25, lines 33-39).

Regarding claims 13, 16, 20 and 23, Kikuchi teaches a method, wherein said checking said validity of said second data frame comprises providing an output signal indicating a negative receive response status if a length of said second data frame is different than said first frame length (column 24, lines 56-64; column 25, lines 5-16; column 25, lines 33-39).

Regarding claims 15 and 22, Philbrick and Kikuchi teaches a method, further comprising: checking a validity of said second data frame in response to data in said location of memory associated with said first frame type from said first set up frame (See Philbrick, paragraphs 278 and 459); receiving a first set up frame specifying a first frame type and a first frame length; storing said first frame length in a location of memory associated with said first frame type; receiving a second data frame immediately after said first set up frame (See Kikuchi, column 24, lines 56-64; column 25, lines 5-16; column 25, lines 33-39).

4. Claims 14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Philbrick et al. (U.S. Patent Application 2005/0204058 A1) and Kikuchi et al. (US Patent 6,918,080 B2) and further in view of Webster (U.S. Patent 5,307,351).

Regarding claims 14 and 21, Philbrick in view of Kikuchi teach the limitations of the claims as set forth for the claims 11 and 13, above. However, Philbrick nor Kikuchi do not teach checking the validity of the frame comprises providing an output signal indicating a negative receive response status if said count data is greater than said maximum frame length. Webster teaches checking the validity of the frame comprises providing an output signal indicating a negative receive response status if said count data is greater than said maximum frame length (column 7, lines 18-31). At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the Philbrick and Kikuchi with Webster. The motivation for doing so would be enabling dynamically adjusting the frame length based on the quality of the transmission line (column 2, lines 30-41).

5. Claims 17 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Philbrick et al. (U.S. Patent Application 2005/0204058 A1) and Kikuchi et al. (US Patent 6,918,080 B2) and further in view of Ooi (U.S. Patent 6,961,787 B2).

Regarding claims 17 and 24, Philbrick in view of Kikuchi teach the limitations of the those claims as set forth for the claims 11 and 15, above. However, Philbrick nor Kikuchi do not teach a programmed input/output (PIO) Setup Frame Information Structure (FIS). Ooi teaches teach a programmed input/output (PIO) Setup Frame Information Structure (FIS) (column 3, lines 58-67). At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the Philbrick and Kikuchi with Ooi. The motivation for doing so would be enabling user to setup the frame information structure through PIO SETUP FIS (column 3, lines 58-67).

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Conclusion

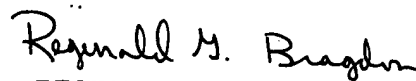
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel B. Ko whose telephone number is 571-272-8194.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Reginald G. Bragdon can be reached on 571-272-4204. The fax phone number for the organization where this application or proceeding is assigned is 703-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel B. Ko
AU 2189



REGINALD G. BRAGDON
PRIMARY EXAMINER